



State of Utah

Department of Natural Resources

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Division of Oil, Gas & Mining

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Division Director

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November 1, 2005

Dexter Anderson, Attorney Red Dome, Incorporated 730 North 3900 West Fillmore, Utah 84631

Subject: <u>Determination on Permitting Requirements, Red Dome Inc., Red Dome Mine, M/027/032</u>, Millard County, Utah

Dear Mr. Anderson:

At your request, the Division has completed an investigation of the Red Dome Mine operated by Red Dome Mining Company located in sections 22, 23, 26 & 27 of Township 21 South Range 6 West. You will recall our meeting with you and Lee Miller at the site on September 15, 2005 and that I was accompanied by Bryce Tripp, Professional Geologist with the Utah Geological Survey. We appreciated the tour of the mine site, which gave us a much better understanding of the mine area and the properties of the material being mined. As promised, I am forwarding to you the results of our investigation.

The material being excavated at the Red Dome mine has been determined to be a bedrock material or bedrock float because it is in place and has not moved very far from where it was erupted. Even though the material is highly fragmented and breaks down into sand and gravel size particles, the material is consolidated and is in place in coherent beds. None of the materials have been significantly water transported. Therefore, the Red Dome pit does not qualify as sand and gravel deposited by alluvial processes and is not exempt from the permitting requirements of the Utah Mined Land Reclamation Act. A copy of Bryce Tripp's report is enclosed for your information and files.

Our investigation has determined that the Red Dome mine does not fall under the exemption for alluvial sand, gravel and rock aggregate. Therefore, the requirement to obtain a permit from our office has not been altered. We appreciate your diligence in completing the required permitting paperwork. We look forward to working with you on this project and appreciate your help with this permitting activity.



Dexter Anderson Page 2 of 2 M/027/032 November 1, 2005

Thank you again for your cooperation during this process. Please don't hesitate to call if you have any questions.

Sincerely,

Daron R. Haddock Permit Supervisor

Minerals Regulatory Program

Haddock

DRH:jb

Attachment: UGS report

O:\M027-Millard\M0270032-RedDome\final\permitrequired.doc

m/027/032 CC: Daron, tom Susan, mary A

MEMORANDUM

TO: Utah Division of Oil, Gas and Mining (DOGM), Minerals Regulatory Program RECTIVED

FROM: Bryce Tripp, Senior Scientist, Utah Geological Survey

DATE: September 26, 2005

SUBJECT: Geology of the Red Dome, Inc. cinder pit

DIV OF OIL GAS & MINING

OCT 11 2005

NO. 50%

As requested by DOGM, I have evaluated the geology of the material mined at the Red Dome. Inc. pit. I have reviewed the literature and available geologic maps and toured the property. Daron Haddock and I met Dexter Anderson and Lee Miller at the Red Dome pit at around 11:00 am on September 15, 2005. Daron discussed the applicable rules with them and I gave them a quick summary of the geology of their property as published in Oviatt (1991). Dexter and Lee then gave us a tour of the property.

The Red Dome, Inc. cinder (scoria) pit is excavated in the Ice Springs volcanic cone (located in section 22, 23, 26, and 27, T.21S., R.6W., Tabernacle Hill and Meadow 7.5' quadrangles, in Millard County). The volcanic cone is composed of the Quaternary Basalt of Ice Springs (Oviatt, 1991) (Qvb1 on figure 1). The volcanic rock consists of basalt flows with associated volcanic cinders. This basalt is very young, perhaps only 4000 to 660 years old (Hintze and others, 2003).

All of the basalt flow and cinder material (Qvb1 on figure 1) is considered bedrock or bedrock float because it is in place or has not moved very far from where it was erupted. None of this material has been significantly water transported either by streams or by lake currents. It is very fresh and angular (figures 2 and 3), with shiny, commonly iridescent surfaces. A large percent of the fragments shows well-preserved bubble and flow textures (figure 4).

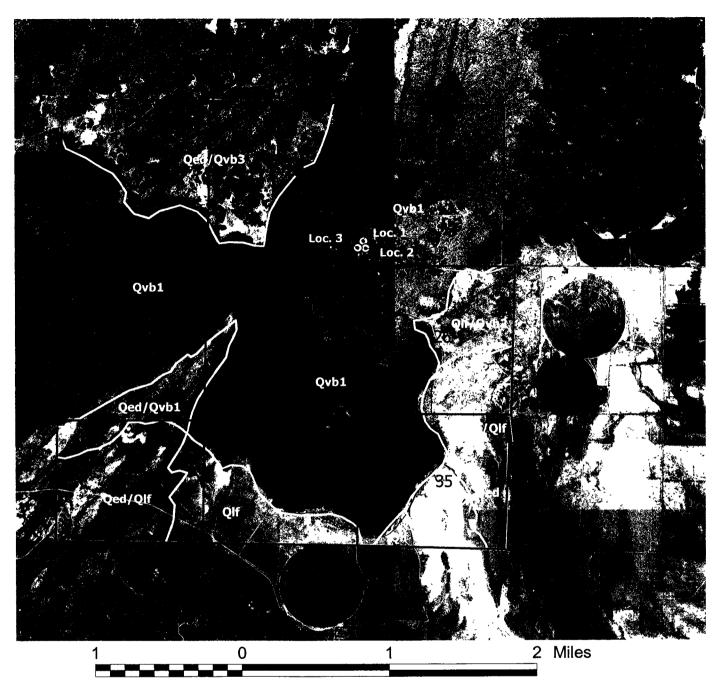
Additionally, there is not enough topographic relief on this volcanic cone to have developed streams, and as the volcanic cone is much younger than Lake Bonneville, there has been no water transport or rounding of the cinders by lake currents. In summary, there is no evidence that material mined at this site was deposited by sedimentary processes.

References:

Hintze, L.F., Davis, F.D., Rowley, P.D., Cunningham, C.G., Steven, T.A., and Willis, G.C., 2003, Geologic map of the Richfield 30' x 60' quadrangle, southeast Millard County and parts of Beaver, Piute, and Sevier Counties, Utah: Utah Geological Survey Map 195, scale 1:100,000.

Oviatt, C.G., 1991, Quaternary geology of the Black Rock Desert, Millard County, Utah: POFESSIO

Utah Geological Survey Special Studies 73, 23 p., 1 plate, scale 1:100,000.



Qvb1 - Basalt of Ice Springs

Qed/Qvb3 - Wind-blown sand/Basalt of Pavant Ridge

Qed/Qvb1 - Wind-blown sand/Basalt of Ice Springs

Qed - Wind-blown sand

Qlf - Younger fine-grained lake deposits

Qpm - Mud flats

Qed/Qlf - Wind-blown sand/younger fine-grained lake deposits

Qam/Qlf - Alluvial mud/younger fine-grained lake deposits

Figure 1. Geology of the Ice Springs crater area, T.21S., R.6W., SLBM (from Oviatt, 1991). Red Dome, Inc. cinder pit is located within sections 22, 23, 26, and 27. Photo locations are shown as yellow and black dots. (Black and white part of the photographic base is a 1993, 1-meter resolution, U.S. Geological Survey digital orthophoto; the color part of the base is a 2004, 1-meter National Agricultural Imagery Program photo).

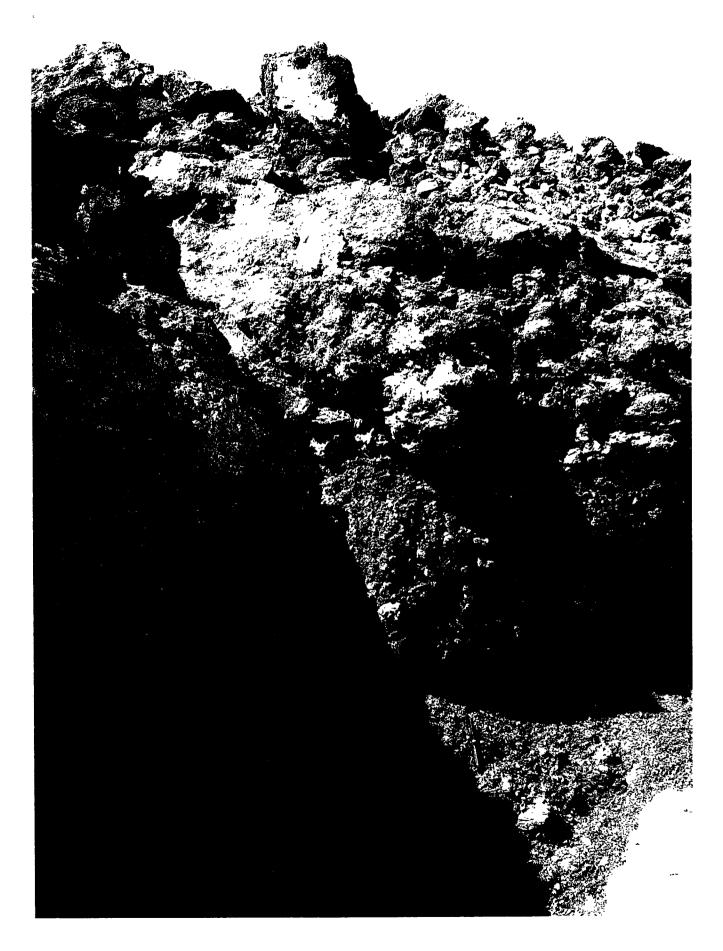


Figure 2. Red Dome pit highwall (location 2 on figure 1) showing lava flow over angular cinders. Note pen for scale.

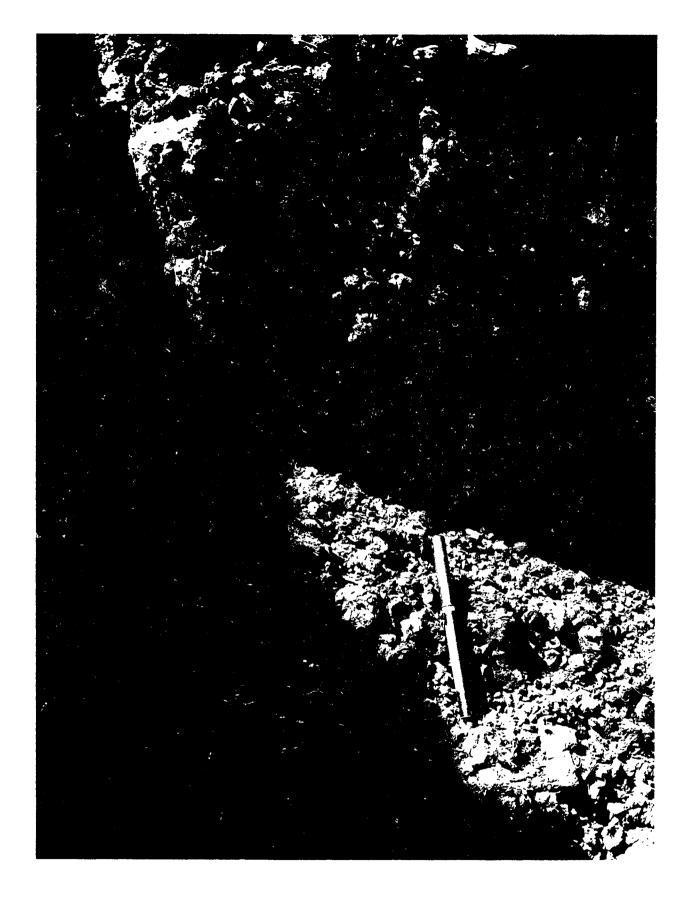


Figure 3. Blown-up detail from figure 2 (location 2 on figure 1) showing angularity and bubble and flow texture of basalt fragments. Note pen for scale.

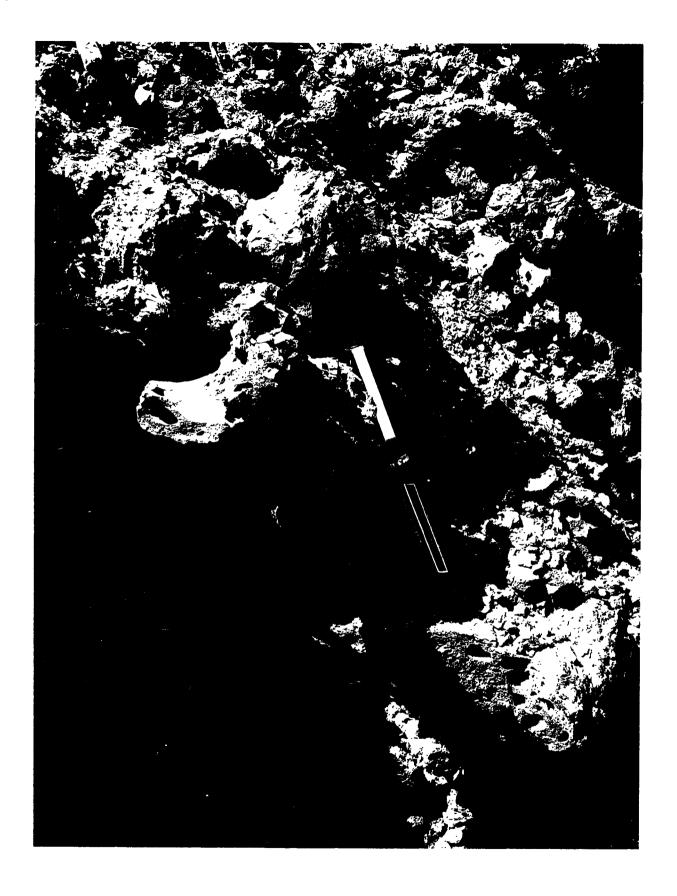


Figure 4. Close-up of scoria in Red Dome pit highwall (location 1 figure 1) showing fresh, unabraded surfaces of fragments with preserved bubble and flow textures.